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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/642,453

**Applicant(s)**

WOLF ET AL.

**Examiner**

TUAN C. TO

**Art Unit**

3663

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-16 and 18-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-23 are rejected under 35 U.S.C. 112 (second paragraph) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites the limitation "where the means for establishing coordinates requests" in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 22 and 23 are rejected for the same reason.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5 fail to define a statutory process, a process consisting solely of mathematical operation does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

As to claim 1, the claim currently claimed by the applicant is drawn to process steps which fail to provide a tangible result. To be statutory there must be sufficient structural and functional interrelationships between what appears to be either a

computer program or purely mental steps and other claimed elements (such as a computer or processor) which permit the functionality of a computer program (or mental steps) to be realized. For the claim to be statutory there is a requirement that there be a functional interrelationship among the data and the computing processes performed when utilizing the data. It is found that claim 1 recites the feature of "establishing a radio connection..., receiving from multimedia units requests..., and coordinating at the interface unit requests for radio connection..." The claim does not appear to have a tangible result after completing the set forth steps. The applicant must explicitly cite the results of the set forth steps.

Claims 2-5 are rejected for the same reason.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al. (US 5896554A).

With respect to claim 1, Itoh et al. discloses a system/method comprising a car radio that is capable of being tuned one by one to a group of radio stations (see column 2, lines 33-55). Therefore, Itoh et al. discloses a radio connection that is established between the interface unit (e.g., car radio) and an external unit (e.g., radio stations). Itoh et al. further discloses that the car radio is the AM-FM radio receiver for receiving AM standard broadcast and the standard FM broadcast from the radio stations (see column 9, lines 62-67). To avoid the problem of taking impractically long time to cover all the possible frequencies, Itoh et al. further discloses three layered grouping of radio stations classified depending on priority so that radio stations of higher priority are surveyed first and follows by those of low priority (see column 10, lines 61-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to coordinate at the car radio for radio connection with the radio stations that have highest priority first then the stations that have lower priority.

As to claim 2, Itoh et al. further teaches the feature of "transmitting data/commands over the radio connections in both directions between the interface unit

and the external unit". As set forth in column 4, lines 19-23, Itoh et al. teaches that the monitoring apparatus 1 transmits stored data to the center 2).

As to claim 3, as presented above, the car radio comprises AM-FM radio receiver for receiving standard AM and FM broadcast and sending the received broadcast signal to the system control unit (12).

As to claims 4, and 5, Itoh et al discloses the act of determining a sequence for processing simultaneously received requests by determining the radio station with highest priority first to follow by those of intermediate priority and then by those of low priority (see column 10, lines 61-65).

Claims 1-3, 6-9, 11-16, and 18, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis et al. (US 5801865A).

Regarding claim 1, Weis et al. discloses a system/method for exchanging data in a vehicle multimedia system that includes an interface unit (see figure 1, interface unit 18), and a plurality of multimedia units (see figure 1, a plurality of unit each has an interface connected to the transmission network 19), wherein said the interface unit and said units are connected to the transmission network (19) which can be a copper cable, an optical bus system, and particularly a CAN (see figure 1, and column 2, lines 44-63).

Weis et al. discloses "establishing a radio connection between the interface unit and an external unit". Such the radio connection is established by the HF-transmitting and receiving device (22) which is a communication part of the central terminal control unit (15). The transmitting and receiving device is provided for exchanging voice, text

and control data signal for the different telecommunication services between the vehicle and the global system mobile communication network (see column 5, lines 6-10).

Weis et al. discloses "receiving from the multimedia units requests for the radio connection with the external unit" (see figure 1, and column 2, lines 54-63, the central terminal control unit 15 receives the requests for radio connection from the terminal units such as fax machine, telephone, and PC).

Weis et al. teaches that the central terminal control unit (15) performs all the control and signal processing function (see column 2, lines 21-25), wherein said unit which is at the interface unit (18) bi-directionally communicates with each of the terminal devices (see column 2, lines 44-63).

While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the central terminal unit (15) that has the interface (18) connected to the transmission network (19) for coordinating the request for radio connection from a terminal device to a global communication network.

Regarding claim 6, 13, and 21, Weis et al. discloses a multimedia system suitable for use in a vehicle and capable of communicating with an external unit, comprising: an interface unit (see figure 1, interface unit 18); a plurality of multimedia units (see figure 1, terminal devices 32, 33, etc); a data bus in the vehicle (see figure 1, column 2, lines 44-49, the transmission network 19 is a data bus), where the interface

unit and the plurality of multimedia units are each connected to the data bus (see figure 1); and where the interface unit establishes a radio connection with the external unit via the HF-transmitting and receiving device (22), and where the interface unit (18) bi-directionally communicates with each of the terminal device (see (see column 2, lines 44-63).

While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the central terminal unit (15) that has the interface (18) connected to the transmission network (19) for coordinating the request for radio connection from a terminal device to a global communication network.

The statements of intended use or field of use, "capable of..." clause recited in claims 6 and 21 is essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647 (Bd. Pat. App. & Inter. 1987).



Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

As to claim 2, Weis et al. further discloses the act of transmitting data/commands over the radio connection in both directions between the interface unit and the external unit (see figure 1, the central terminal control unit 15 comprising the HF transmitting and receiving device (22) for transmitting data over the radio connection in both directions between the interface unit (18) and external unit).

As to claim 3, Weis et al. further discloses the act of receiving multimedia data at the interface unit (18) via the radio connection using HF transmitting and receiving device (22); and sending the received multimedia data from the interface unit (18) over the data bus (19) to at least one of the terminal units (see figure 1).

As to claim 7, Weis et al. further discloses that the interface unit (18) is located at an arbitrary location along the data bus (19) (see figure 1).

As to claim 8, Weis et al. further discloses that the interface unit (18) receives multimedia data over the radio connection using the HF-transmitting and receiving unit (22) and sends the received multimedia data over the data bus to at least one of the multimedia units (see figure 1, column 2, lines 50-63).

As to claim 9, Weis et al. shows that the interface unit (18) is situated in the data bus (19) as a separate unit (see figure 1).

As to claims 11, and 12, Weis et al. further discloses means (18) for receiving a request from at least one of the terminal units 32, 33, and 35 (see figure 1), for processing the received request, and for communicating with the external unit over the radio connection to fulfill the received request (see figure 1, the central terminal control unit 15 processes the requests from terminal units 32, 33, and 35 and communicating with external unit via the HF-transmitting and receiving unit 22).

As to claim 14, Weis et al. shows that the interface unit (18) is situated in the data bus (19) as a separate unit (see figure 1).

As to claim 15, Weis et al. illustrates the terminal control unit (15) as a coordination unit that is configured to perform the coordination of the requests for radio connections to the external unit via the transmitting/receiving unit (22), which it receives from the terminal units.

As to claim 16, Weis et al. shows that the interface unit (18) is situated in the data bus (19) as a separate unit (see figure 1).

As to claim 18, Weis et al. further discloses that the interface unit (18), connected to the bus (19), receives traffic information in response to a request transmitted from the interface unit to the external unit.

As to claim 19, Weis et al. further discloses that the high-frequency unit (22) for transmitting data to and receiving data from external unit (see figure 1).

While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mratz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

Claims 4, 5, 20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis et al. (US 5801865A) and in view of Tanihira et al. (US 5574514A).

Weis et al. fails to disclose determining a sequence for processing simultaneously received requests.

Tanihira et al. teaches a system control unit (21) and a plurality of audio/video units (each connected to the data bus (71)). The SCU (21) is described as a respective unit that performs the control including determining a sequence for processing simultaneously received requests from the audio/video (see column 7, lines 8-19, and column 10, lines 36-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system/method of Weis et al. to include the teaching of determining a sequence for processing simultaneously received requests as taught in Tanihira et al. in order to enhance a radio-telecommunication system for a mobile vehicle that has a plurality of radio-telecommunication devices and another audio/video devices connected to a same system bus.

### ***Response to Arguments***

The applicant's amendment and remarks filed on 04/21/2009 have been fully considered. However, the previous art rejection cannot be withdrawn for the following reason:

Regarding 35 U.S.C. § 101 rejection, claim 1 is drawn to process steps which fail to provide a tangible result. It is found that claim 1 recites the steps of "establishing a

radio connection..., receiving from multimedia units requests..., and coordinating at the interface unit requests for radio connection..." However, the claim does not appear to have a tangible result after completing the set forth steps. The applicant must explicitly cite the results of the set forth steps. The applicant seemed to assert that the claimed process is tied to a particular machine rather than to discuss "tangible result" of the claimed steps.

Regarding 35 U.S.C. § 103 (a) rejection:

a. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al. (US 5896554A).

The examiner has discovered the system/method as taught by Itoh et al. comprising a car radio that is capable of being tuned one by one to a group of radio stations. Therefore, Itoh et al. discloses a radio connection that is established between the car radio and an external unit (e.g., radio stations). Itoh et al. further discloses that the car radio is the AM-FM radio receiver for receiving AM standard broadcast and the standard FM broadcast from the radio stations. To avoid the problem of taking impractically long time to cover all the possible frequencies, Itoh et al. further discloses three layered grouping of radio stations classified depending on priority so that radio stations of higher priority are surveyed first and follows by those of low priority.

b. Claims 1-3, 6-9, 11-16, and 18, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis et al. (US 5801865A).

As clearly pointed herein above, Weis et al. discloses all necessary structures to implement the desired use of the claimed system/method.

Weis et al. discloses a system/method for exchanging data in a vehicle multimedia system that includes an interface unit and a plurality of multimedia units each has an interface connected to the transmission network (19). The interface unit of each multimedia unit is connected to the transmission network (19).

Weis et al. discloses a device for establishing a radio connection between the interface unit and an external unit. For example, such the radio connection is established by the HF-transmitting and receiving device (22) which is a communication part of the central terminal control unit (15). The transmitting and receiving device is provided for exchanging voice, text and control data signal for the different telecommunication services between the vehicle and the global system mobile communication network.

Weis et al. discloses a device for receiving from the multimedia units requests for the radio connection with the external unit. For example, in figure 1, and column 2, lines 54-63, the central terminal control unit (15) receives the requests for radio connection from the terminal units such as fax machine, telephone, and PC.

Weis et al. further teaches that the central terminal control unit (15) performs all the control and signal processing function (see column 2, lines 21-25), wherein said unit which is at the interface unit (18) bi-directionally communicates with each of the terminal devices (see column 2, lines 44-63).

For that reason, the application is now set in a condition of final rejection.

***Conclusions***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (571) 272-6985. The examiner can normally be reached on from 8:00AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan C To/

Primary Examiner of Art Unit 3663/3600

July 15, 2009